

TECHNIQUES FOR PROVIDING
MULTIPLE COMMUNICATIONS PATHWAYS

ABSTRACT OF THE DISCLOSURE

5 A communications assembly includes a transmitter configured to receive a first
electrical input signal and a second electrical input signal, and to provide a light signal
having (i) light modulation based on the first electrical input signal and (ii) average
power over time based on the second electrical input signal. The communications
assembly further includes a receiver configured to receive the light signal and to provide
10 (i) a first electrical output signal based on the light modulation of the light signal and (ii)
a second electrical output signal based on the average power of the light signal over
time. The communications assembly further includes an optical fiber interconnecting
the transmitter with the receiver to convey the light signal from the transmitter to the
receiver. Accordingly, the communications assembly provides a robust and reliable
15 mechanism for providing multiple communications pathways using a single light signal
through a single optical fiber.